

Comparisons of Job Characteristics

Focus Occupation: [Engine and Other Machine Assemblers \(51-2031\)](#)

Associated Occupation: [Structural Iron and Steel Workers \(47-2221\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation: Structural Iron and Steel Workers (47-2221)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Building and Construction	4.0	18.3	4.0	<<	Extensive education and/or training may be required
Mechanical	6.8	13.5	14.7	0	Current knowledge level may be sufficient
Production and Processing	6.0	13.2	8.8	<<	Extensive education and/or training may be required
Mathematics	9.2	12.5	4.7	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	11.5	5.6	<<	Extensive education and/or training may be required
Design	5.2	11.2	5.4	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation: Structural Iron and Steel Workers (47-2221)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Coordination	9.1	11.2	6.4	<<	Extensive development of skills in this area may be required
Operation and Control	5.4	10.8	8.1	<<	Extensive development of skills in this area may be required
Operation Monitoring	6.6	10.2	10.3	0	Current skill level may be sufficient
Repairing	3.4	6.2	8.1	>	Skill level is likely sufficient
Equipment Selection	3.3	6.1	5.5	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 63			
Focus Occupation: Engine and Other Machine Assemblers (51-2031) Associated Occupation: Structural Iron and Steel Workers (47-2221)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Static Strength	5.0	16.6	7.9	<<	Extensive improvement in abilities may be required
Multilimb Coordination	6.0	15.3	10.0	<<	Extensive improvement in abilities may be required
Arm-Hand Steadiness	6.8	14.3	11.1	<<	Extensive improvement in abilities may be required
Manual Dexterity	6.5	13.5	10.3	<<	Extensive improvement in abilities may be required
Depth Perception	5.3	13.3	6.8	<<	Extensive improvement in abilities may be required
Gross Body Equilibrium	3.2	13.0	3.4	<<	Extensive improvement in abilities may be required
Trunk Strength	5.7	12.6	9.6	<<	Extensive improvement in abilities may be required
Auditory Attention	5.9	11.6	8.3	<<	Extensive improvement in abilities may be required
Dynamic Strength	3.5	11.5	5.8	<<	Extensive improvement in abilities may be required
Glare Sensitivity	2.6	8.5	5.0	<<	Extensive improvement in abilities may be required
Peripheral Vision	2.2	6.8	3.4	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 85
Focus Occupation: Engine and Other Machine Assemblers (51-2031) Associated Occupation: Structural Iron and Steel Workers (47-2221)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Identify properties of metals for repair or fabrication activities	71	
Maintain welding machines or equipment	70	
Make independent judgment in assembly procedures	64	
Move or fit heavy objects	8	

Operate hoist, winch, or hydraulic boom	34
Perform safety inspections in industrial, manufacturing or repair setting	32
Read blueprints	10
Read specifications	23
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use combination welding procedures	68
Use hand or power tools	2
Use precision measuring tools or equipment	17
Verify levelness or verticality, using level or plumb bob	72
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 77

Focus Occupation: Engine and Other Machine Assemblers (51-2031)

Associated Occupation: Structural Iron and Steel Workers (47-2221)

Tools and Technologies	Exclusivity
Computers	1
Cutting tools	18
Fastener setting tools	12
Forming tools	2
Holding and clamping tools	3
Lifting equipment and accessories	3
Power tools	2
Prying and bending tools	10
Rough and finishing tools	5
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.